Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

Cooper's Landing

Landing Way

Hyattsville, Maryland 20784

SWPPP Prepared For:

D & F Construction, Inc.
Nick Hernandez
4017 Penn Belt Place
Forestville, Maryland 20747
240-398-0377
nhernandez@dfcci.net

SWPPP Prepared By:

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SWPPP Preparation Date:

December 2024

Estimated Project Dates

Project Start Date: December 2024

Project Completion Date: June 2025

A SWPPP is required for your site in the following situations (Part III.F.1 of the Permit). Indicate which of these conditions apply at your site:

☐ My project is within a common plan of development and I am sharing liability between and among operators on the same site. This SWPPP clarifies insert name of person or organization areas of responsibility.

☒ I plan to use Chemical Additives or Polymers for Sediment Control.

X I have the potential for any of the non-stormwater discharges prohibited in permit Part I.D (also listed below). This may include any of these.

1. Wastewater from the Concrete Washout. (permit Part III.A.3.d).

2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials. (permit Part III.A.3.d)

3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance (permit Parts III.A.3.a and III.A.3.c.iii).

4. Soaps or solvents, or detergents used in vehicle and equipment washing or external building washdown (permit Part III.A.3.b);

5. Toxic or hazardous substances from a spill or other release (also see permit Part III.A.3.c iv, III.A.3.f. and VI.J) (whether the site is known to be contaminated by PCBs, PFAS, mercury, lead, or other metals, or any other source of toxic industrial pollution); and

6. Water contaminated by toxic or hazardous substances from sites managed under Maryland's Voluntary Cleanup Program (VCP) or Land Restoration Program (LRP).

X I plan on implementing controls associated with the activities requiring pollution prevention measures, referenced in Part III.A.3 of the permit.

None of the above, I am voluntarily creating a SWPPP for my construction activity.

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SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES (Part III.F.2.a of the permit)

1.1 Operator(s) / Subcontractor(s)

Operator(s):

D & F Construction, Inc.

Nick Hernandez

4017 Penn Belt Place

Forestville, Maryland 20747

240-398-0377

nhernandez@dfcci.net

Subcontractor(s):

None

Emergency 24-Hour Contact:

Nick Hernandez

240-398-0377

nhernandez@dfcci.net

If part of a common plan of development, include a map delineating areas of responsibility and include a table of those entities so that it is clear to an inspector or other entities at your site, where each entity is responsible for permit compliance. The following is meant to be an example of what to include, however based on site complexities you are free to revise the table to meet your needs.

Common Plan of Development – Roles and Responsibilities.

Entity	Contact Info	Project Area	Responsibility
NA			

1.2 Stormwater Team (Part III.F.2.b of the permit)

Stormwater Team		
Name and/or position, and contact	Responsibilities	I Have Read the 20-CP and Understand the Applicable Requirements
Nick Hernandez 240-398-0377 nhernandez@dfcci.net	Construction Foreman	X Yes Date: December 2024 through project completion
Prince George's County Department of Permits, Approvals, and Inspections	Inspection of construction contractor's work	
Prince George's County Soil Conservation District	Inspection of Sediment Controls	

SECTION 2: NATURE OF CONSTRUCTION ACTIVITIES (Part III.F.2.c of the permit)

2.1 Project/Site Information

Project Name and Address

Project/Site Name: Cooper's Landing

Project Street/Location: Landing Way

City: Hyattsville

State: Maryland

ZIP Code: 20784

County or Similar Subdivision: Prince George's

Business days and hours for the project: M-F 8am-3pm

Project Latitude/Longitude

Latitude: **38.93804°** N
(decimal degrees)

Longitude: **-76.90191**° W
(decimal degrees)

Latitude/longitude data source:

X Map ☐ GPS ☐ Other (please specify): _____

Additional Project Information

Are you requesting permit coverage as a state or federal entity? ☐ Yes X No

Have you received an assigned MDE SF number for the Erosion and Sediment Control Plan?
☐ Yes X No

If yes, please provide the assigned number:

2.2 Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? X Yes ☐ No

Are there any waters of this State within 50 feet of your project's earth disturbances? X Yes ☐ No

Provide the Watershed Basin Code below. If your project discharges to more than one watershed, please provide all basin codes.

Surface waters – Anacostia River	**02140205**

Outf all ID	Name of receiving water	Is the receiving water impaired (on the CWA 303(d) list)?	List the pollutants that are causing the impairment	Is there a completed TMDL for this receiving waterbody ?	Is this receiving water designated as a Tier II?
#1	Anacostia River	X Yes ☐ No	Bacteria, Nutrients, PCBs, Sediments, Trash	X Yes ☐ No	☐ Yes X No

2.3 Description of the Construction Activities (Part III.F.2.c.i - v of the permit)

General Description of Project

Provide a general description of the nature of your construction activities. For any demolition, include the dates of past renovations:

This project is the retrofit of an existing wet pond, excavation of pond bottom, installation of a gabion wall to create a forebay, reduction of low orifice opening to extend detention volume, cleaning and stabilization of emergency spillway.

Filter bags, sump pit pump, silt fence, a temporary stone barrier wall, and pump around systems will be used to divert the water around the work area, which will be done in small sections to limit the amount of disturbed area at one time. Stabilized construction entrances will be used to prevent soil from leaving the site onto the pavement. The stockpile area will be surrounded by silt fence to prevent soil from washing away.

Size of Construction Site

Size of Property: 1.69 Acres

Total Acreage Expected to be Disturbed by Construction Activities: 1.37 Acres

Maximum Acreage Expected to be Disturbed at Any One Time: 1.37 Acres

Type of Construction Site *(check all that apply):*

☐ Single-Family Residential ☐ Multi-Family Residential ☐ Commercial ☐ Industrial

☐ Institutional ☐ Highway or Road X Utility ☐ Other _____

Will there be demolition of any structure built or renovated before January 1, 1980?

☐ Yes X No

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space? ☐ Yes ☐ No X N/A

Pollutant-Generating Activities (Part III.F.c.vii)

– List and describe all pollutant-generating activities. Indicate for each activity the type of pollutant that will be generated. Consider where potential spills and leaks could occur, and any known hazardous or toxic substances, such as PCBs or asbestos, which will be disturbed during construction.

Pollutant-Generating Activity

Soil from excavation
Dewatering

Pollutants or Pollutant Constituents

(e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels)

Excavation & dewatering	Sediment, groundwater
Vehicle & equipment use	Gasoline & Diesel Fuels

Construction Support Activities *(only provide if applicable)*

Describe any construction support activities for the project

(e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas)

Staging area for construction equipment is along the maintenance road, nearby inlet is to have curb inlet protection installed. Silt fence is being installed along the downhill side of the stabilized construction entrance and staging area.

Excess soil from the excavation work is to be removed from the site daily.

Silt fence, filter bags, pump arounds for the work areas to keep the work dry and the sediment in.

Contact information for construction support activity:

Nick Hernandez
240-398-0377 nhernandez@dfcci.net

2.4 Sequence and Estimated Dates of Construction Activities (Part III.F.2.c.vi of the permit)

Phase I

Construction Start Date, work area is paving and grass field, no clearing/grubbing required.	December 2024
Estimated End Date of Construction Activities for this Phase	November 2025

Estimated Date(s) of Application of Stabilization Measures for Areas of the Site Required to be Stabilized	June 2025
Estimated Date(s) when Stormwater Controls will be Removed	December 2025

2.5 Authorized Non-Stormwater Discharges (Part III.F.2.e of the permit)

List of Authorized Non-Stormwater Discharges Present at the Site

Type of Authorized Non-Stormwater Discharge *You are required to identify the locations of these authorized non-stormwater discharges on your site map.*	**Present at the construction site?**
Discharges from emergency fire-fighting activities	☐ Yes X No
Landscape irrigation;	☐ Yes X No
Waters used to wash vehicles and equipment	☐ Yes X No
Water used to control dust	☐ Yes X No
Potable water including uncontaminated water line flushing (requires separate "HT" permit)	☐ Yes X No
External building washdown (soaps/solvents are not used, and external surfaces do not contain hazardous substances)	☐ Yes X No
Pavement wash waters	☐ Yes X No
Uncontaminated air conditioning or compressor condensate	☐ Yes X No
Uncontaminated, non-turbid discharges of ground water or spring water	☐ Yes X No
Construction dewatering water	X Yes ☐ No

SECTION 3: DEWATERING AND USE OF CHEMICAL TREATMENT (Part III.F.2.c of the permit)

3.1 Dewatering Practices

General

Dewatering to allow for excavation of sediment from bottom of pond

Specific Dewatering Practices

Sump pit to dewater pond area to allow for grading activities	
Description: Insert a description of the dewatering practice to be installed	
Installation	January 2025
Maintenance Requirements	Sump pit is monitored for sediment laden water & reconstruction, replace geotextile and stone as needed on sediment tanks. Filter bags and pump arounds will be used to route the waters around the work areas. Corrective action is implemented frequently where they cease pumping and remove sediment from Tanks until the geotextiles/stone(s) are replaced and then if no improvement is noted, they throttle back the pumping operation accordingly. All discharge locations are in areas additionally protected by Silt Fence Installations

3.2 Chemical Treatment

Will this site use treatment chemicals? ☒ YES ☐ NO

Soil Types

List all the soil types (include soil types expected to be found in fill material) that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems:

Clay	N/A

[Repeat as needed.]

Treatment Chemicals

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics:

Is this an active injection system managed by Rain for Rent technicians?

Yes, Rain For Rent Technicians will have their information documented on the Filtration System Operation Log. See attached Filtration Technician List

List all treatment chemicals	Is the chemical suited to the soil characteristics?	Explain how the chemical is suited to the soil characteristics.
BHR P-50	☒ Yes ☐ No	The positively charged BHR P-50 neutralizes the negative charge of the clay and helps bind fine clay particles together into larger aggregates (flocs), which settle more easily or can be filtered out.

Chosen as the most effective flocculant during jar testing site specific water

▪Causes coagulation / enlargement of very fine silty clay suspended sediment particles that don't settle or don't settle in a reasonable amount of time. In cases like this, turbidity reduction to below 150 NTU is nearly impossible without the use of flocculants.

List all treatment chemicals, a description of the dosage to be used and the method of storage:

List all treatment chemicals	Describe the dosage for the treatment chemical	Describe the storage of the treatment chemical
BHR P-50	78.4 mg/L	The 275-gallon leak proof tote of liquid BHR P50 flocculant will be stored on site inside of a spill containment berm for added protection.

Provide any additional applicable Safety Data Sheet information:

Please see the attached Safety Data Sheet	

Provide all additional local requirements affecting the use of treatment chemicals:

List all treatment chemicals	Is there any additional local requirement affecting the use of this chemical?	Explain the additional local requirement.
BHR P-50	☐ Yes ☒ No	N/A

Special Controls for Cationic Treatment Chemicals (if applicable)

What filtering will be applied at the end of the treatment process to ensure flocced sediment solids (which often floats) won't enter the receiving waters?

As an additional measure of protection, in the unlikely event that a "positive" residual BHR-P50 result is detected, the water treatment technician will perform the following "corrective action": close discharge valve and recirculate the discharge water to the beginning of the treatment process (beginning of weir settling tank) until a "negative" residual BHR-P50 result is achieved. Once this corrective action has been successfully performed, the discharge valve will be reopened.

If MDE authorized you to use cationic treatment chemicals, include the official authorization letter or other communication, and identify the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards. Also, include any other approval authorities contacted for the approval.

Provide the name(s) of approval authorities contacted and date(s) contacted:

Maryland Department of the Environment	**8/1/2025**

Provide a brief explanation for the use of Cationic Treatment Chemicals:

Difficulties with dewatering the pond due to the high turbidity levels and unable to dewater the pond for approximately several weeks. The levels have consistently been in the 800-1000 NTU range. Attempted to utilize a portable sediment tank, but this has not improved the turbidity readings enough to fall under the 150 NTU threshold.

The Subcontractor has attempted to use anionic (-) polymers with prior projects for clay and sediment water however, they do not work well with (-) charged sediment particles in water (like charges repel).

On the other hand, our approved cationic (+) charged polymers are effective since they attract (-) charged sediment in water. This attraction causing coagulation which enhances the settling process in our tanks and thus allowing filtration equipment to work since the microscopic clay / fine silt particles then become macroscopic, leaving low NTU water flowing to discharge.

Residual test for aluminum will be performed within 1st hour of chemical use and every 4 hours thereafter.

Please note that 50 GPM is the maximum dewatering flow rate calculated planned for this project:

Flow Rate 50 GPM, BHR-P50 Dose 78.4 mg/L (100 PPM) .3 GPH

Training on Use of Additives

Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals:

List all treatment chemicals	Is there any specific training that personnel must receive prior to handling or applying this chemical?	Explain the training.
BHR P-50	☒ Yes ☐ No	Please see the attached Training Presentation

SECTION 4: POLLUTION PREVENTION STANDARDS (Part III.A.3 of the Permit)

4.1 Potential Sources of Pollution

Construction Site Pollutants

You must consider where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos that will be disturbed or removed during construction.

Pollutant-Generating Activity	**Pollutants or Pollutant Constituents** (that could be discharged if exposed to stormwater)	**Location on Site** (or reference SWPPP site map where this is shown)
Excavation	Sediment	Length of the pond retrofit & bank/bottom repairs

4.2 Spill Prevention and Response

Spill prevention and response procedures (see Part I.D.5 and Part III.A.3.c.iv of the permit). You must include the following:

- Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and
- Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part III.A.3.f. and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period (see Part III.A.3.f). Contact information must be in locations that are readily accessible and available to all employees. You may also reference the existence of Spill Prevention Control and Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.

Silt fence along the excavation throughout the work area
Inlet protection on the inlets near the staging areas on pavement
Filter bag on the dewatering hose, pump arounds to keep the work areas dry

4.3 Fueling and Maintenance of Equipment or Vehicles (Part III.A.3.a in the Permit)

General

All major equipment/vehicle maintenance will occur off-site. Minor vehicle/equipment maintenance and fueling will occur at Site Access on pavement.

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: All major equipment/vehicle maintenance will occur off-site. Minor vehicle/equipment maintenance and fueling will occur at Site Access on pavement.	
Installation	Equipment and vehicle maintenance/fueling practices will be implemented at the commencement of site construction activities. Fuel vehicles will deliver fuel to onsite vehicles at the end of the site access route and the entrance to the work zone. Spill kits shall be onsite at all times during fueling. Any spills shall be cleaned up and disposed of immediately. Fueling will be located away from drainage conveyance on a stabilized surface that can be easily removed and replaced if contaminated. Drip pans and absorbents shall be on site and located under any leaky vehicles.
Maintenance Requirements	Equipment and vehicles will be checked for leaks daily. Leaks will be repaired immediately or affected vehicles/equipment will be removed from the site. Staging area will be checked for evidence of spills or leaks weekly. Sufficient spill cleanup materials will be stored onsite at all times during fueling. Absorbents shall be removed and replaced when contaminated. Drip pans will be emptied and waste disposed of properly as needed.

4.4 Washing of Equipment and Vehicles (Part III.A.3.b in the Permit)

General

Limited Vehicle and Equipment Washing

Specific Pollution Prevention Practices

Provide pollution prevention practice

Description: Limited Vehicle and Equipment Washing	
Installation	Vehicle and equipment washing on site is limited to wheel washing prior to leaving the site. Washing consists of spraying equipment with potable water. No detergents or solvents may be used. Runoff from spraying shall be directed to a MDE approved erosion and sediment control device.
Maintenance Requirements	See plans for standard maintenance requirements for erosion and sediment control device.

4.5 Storage, Handling, and Disposal

Stored in conex box on site / spill containment berm during usage.

The 275-gallon leak proof tote of liquid BHR P50 flocculant will be stored on site inside of a spill containment berm for added protection.

4.5.1 Building Products (Part III.A.3.c.i in the Permit)

General

N/A

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: N/A	
Installation	N/A
Maintenance Requirements	N/A

4.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials (Part III.A.3.c.ii in the Permit)

General

N/A

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: N/A	
Installation	N/A
Maintenance Requirements	N/A

[Repeat as needed.]

4.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals (Part III.A.3.c.iii in the Permit)

General

Mobile fueling of equipment occurs at designated Staging area and in close proximity to Spill Containment kits. Spill kits shall be onsite at all times during fueling. Any spills shall be cleaned up and disposed of immediately.
Fueling will be located away from drainage conveyance on a stabilized surface that can be easily removed & replaced if contaminated.

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: Mobile fueling of equipment occurs at designated Staging area and in close proximity to Spill Containment kits.	
Installation	January 2025

Maintenance Requirements	Fueling will be located away from drainage conveyance on a stabilized surface that can be easily removed & replaced if contaminated. Absorbents shall be removed and replaced when contaminated. Drip pans shall be emptied and waste disposed of properly as needed.

4.5.4 Hazardous or Toxic Waste (Part III.A.3.c.iv in the Permit)

General

N/A

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: N/A	
Installation	N/A
Maintenance Requirements	N/A

4.5.5 Construction and Domestic Waste (Part III.A.3.c.v in the Permit)

General

Construction waste will be disposed of daily or weekly at licensed landfills. A dumpster will be kept in the staging area

Specific Pollution Prevention Practices

Provide pollution prevention practice
Description: Proper housekeeping is supervised by the onsite Foreman who will use daily disposal of properly packaged and contained debris on a daily basis making sure not to house

hazardous materials for disposal in such bags. Solids generated by Building activities are also loaded promptly and disposed of accordingly at licensed landfills.	
Installation	Daily
Maintenance Requirements	All debris is removed daily.

4.5.6 Sanitary Waste (Part III.A.3.c.vi in the Permit)

General

A portable toilet will be provided at the staging area.

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: A portable toilet will be provided at the staging area. Portable toilets will be positioned on a secure, flat surface and will be outfitted with collection pans to serve as secondary containment.	
Installation	January 2025 and will be removed at the completion of construction activities.
Maintenance Requirements	Portable toilet will be inspected on a weekly basis and serviced on an as needed basis.

4.5.7 Washing of Applicators and Containers used for Paint, Concrete or Other Materials (Part III.A.3.d in the Permit)

General

N/A

Specific Pollution Prevention Practices

Provide pollution prevention practice

Description: N/A	
Installation	N/A
Maintenance Requirements	N/A

4.5.8 Fertilizers (Part III.A.3.e in the Permit)

General

Provide a general description of pollution prevention for the use of fertilizers
N/A

Specific Pollution Prevention Practices

Provide pollution prevention practice	
Description: N/A	
Installation	N/A
Maintenance Requirements	N/A

4.5.9 Releases in Excess of Reportable Quantities. (Part III.A.3.f in the Permit)

Discharges of hazardous substances and oil resulting from on-site spills are not authorized by this permit. (Part I.D.5). In the event of a discharge resulting from a spill of hazardous substances or oil from a construction site (Parts III.A.3.c.iii and Part III.A.3.c.iv), where the release is an amount equal to or in excess of a reporting quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurring during a 24 hour period:

i. You shall notify the National Response Center (NRC) as soon as you have knowledge of the discharge in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302;

- *1-800-424-8802 or*
- *202-267-2675 (in the Washington, DC metropolitan area)*

ii. You shall notify the Maryland Department of the Environment as soon as you have knowledge of the discharge;

- *Between 8AM and 5PM at 410-537-3510*
- *All other hours at (866) 633-4686*

You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release to the Department's compliance program. Local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies. No condition of this general permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

SECTION 5: INSPECTION, MAINTENANCE, AND CORRECTIVE ACTION

5.1 Inspection Personnel and Procedures (Part III.C of the Permit)

Personnel Responsible for Inspections	
Name	Nick Hernandez, foreman has green card certification
Certificate of attendance for a Responsible Personnel Training Program ☐ Yes ☐ No X N/A	Insert date received certificate of attendance or attendance date
Has the Approval Authority waived the Certificate of Training requirement?	☐ Yes X No ☐ N/A

Inspection Schedule

Standard Frequency:
X Every 7 calendar days and within 24 hours of a 0.25" rain or the occurrence of runoff from snowmelt sufficient to cause a discharge ☐ Every 4 business days
Increased Frequency (if applicable):
For areas of sites discharging to waters designated as Tier II. ☐ Every 4 calendar days and within 24 hours of a 0.25" rain
Rain Gauge Location (if applicable)
N/A

Inspection Report Forms

See attached

5.2 Corrective Action (Part III.D of the Permit)

Personnel Responsible for Corrective Actions

Name and Title: Nick Hernandez, Foreman
Telephone number: 240-398-0377
Email: nhernandez@dfcci.net
Area of site responsible for: All of it

Corrective Action Forms

See attached

SECTION 6: TRAINING (Part III.E of the Permit)

Documentation for Completion of Training

Name	Describe Training	Completion date
Nick Hernandez	State Green Card	

SECTION 7: EROSION AND SEDIMENT CONTROLS (Part III.F.f.i)

7.1 Stream Protection Zone (Natural Buffers or Equivalent Sediment Controls) (Part III.F.f.ii)

Buffer Compliance Alternatives

Are there any disturbance within the Stream Protection Zone? ☐ YES X NO

Check the compliance alternative that you have chosen:

☐ (i) I will provide and maintain a 50-foot (100-foot average within a Tier II) undisturbed natural buffer.

(Note (1): You must show the 50-foot boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls. Also, show on the site map any velocity dissipation devices used to prevent erosion within the natural buffer area.)

☐ (ii) I will provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

(Note (1): You must show the boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls. Also, show on the site map any velocity dissipation devices used to prevent erosion within the natural buffer area.)

7.2 Perimeter Controls (Part III.F.f.ii)

General

Silt fence will be installed along the downstream side of the Limits of Disturbance, See ESC Plans
Inlet protection will be installed on all inlets downstream of the work & staging areas, See ESC Plans.
Filter bags, sump pit, pump arounds will all be installed within the Limits of Disturbance, See ESC Plans

Specific Perimeter Controls

Silt Fence	
Description: Silt fence will be installed along the downstream side of the Limits of Disturbance, See ESC Plans	
Installation	January 2025
Maintenance Requirements	Sediment will be removed before it has accumulated to no more than one half of the above ground height of silt fencing. See silt fence standard details on plan set for additional maintenance specifications.

Inlet Protection	
Description: Inlet protection will be installed on all inlets downstream of the work area.	
Installation	January 2025
Maintenance Requirements	Remove accumulated sediment after each rain event. See inlet protection standard details on plan set for additional maintenance specifications.

7.3 Sediment Track-Out (Part III.F.f.ii)

General

Stabilized Construction Entrances with rock will be used at each entrance from pavement to the work areas.

Specific Track-Out Controls

Insert name of trackout control to be installed	
Description: N/A	
Installation	N/A
Maintenance Requirements	N/A

7.4 Site Stabilization

- Stabilization measures (see Part III.A.2.f). You must include the following:
  - The specific vegetative and/or non-vegetative practices that will be used;
  - The stabilization deadline that will be met in accordance with Part III.A.2.f;
  - If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.

Insert name of site stabilization practice	
X *Vegetative* X *Non-Vegetative* X *Temporary* X *Permanent*	
Description: Temporary stabilization practices include seeding cool season and warm season grasses. Permanent stabilization practices include seeding installation. All seeding practices will conform to all requirements of "2011 Maryland Standard and Specifications for Soil Erosion Sediment Control".	
Installation	See Sediment Control Plans for installation specifications
Completion	Following initial disturbance or re-disturbance, permanent or temporary stabilization will be completed within 3 calendar days as to the surface of all slopes steeper than 3:1 and 7 calendar days as to all other disturbed or graded areas on the site.
Maintenance Requirements	See Sediment Control Plans for maintenance specifications

If unforeseen circumstances have delayed the initiation and/or completion of vegetative stabilization, please provide a description below:

N/A

Provide the name(s) of approval authority and/or MDE Inspector contacted and date(s) contacted:

Prince George's County & MDE Construction inspectors will be assigned before the pre-construction meeting, but are not at this time.	

7.5 Stockpiled Sediment or Soil

General

There is one stockpile onsite

Specific Stockpile Controls

Description: See Sediment Control Plans for installation specifications	
Installation	Stockpile will be surrounded by silt fence and tree protection fencing. Soil will be placed at no steeper than 3:1 slopes with a maximum height of 5 ft.
Maintenance Requirements	See Sediment Control Plans for maintenance specifications

7.6 Minimize Dust

General

Wheel washing will be done at the site access before leaving the concentrated waterways for pavement.

Specific Dust Controls

Provide pollution prevention practice	
Description: Limited Vehicle and Equipment Washing	
Installation	Vehicle and equipment washing on site is limited to wheel washing prior to leaving the site. Washing consists of spraying equipment with potable water. No detergents or solvents may be used. Runoff from spraying shall be directed to a MDE approved erosion and sediment control device.
Maintenance Requirements	See plans for standard maintenance requirements for erosion and sediment control device.

7.7 Minimize Steep Slope Disturbances

General

Steep slopes are within the project area.

Specific Steep Slope Controls

Description: Erosion Control Mats, Heavy Duty Mulch Mats, Temporary Stream Diversion Wall	
Installation	See Sediment Control Plans for installation specifications
Maintenance Requirements	See Sediment Control Plans for maintenance specifications

7.8 Topsoil

General

Topsoil will be salvaged onsite and reused in the excavation with excess being hauled offsite or held temporarily in the onsite stockpile area.

Specific Topsoil Controls

Temporary storage in Stockpile	
Description: See Sediment Control Plans for installation specifications	
Installation	Stockpile will be surrounded by silt fence and tree protection fencing. Soil will be placed at no steeper than 3:1 slopes with a maximum height of 5 ft.
Maintenance Requirements	See Sediment Control Plans for maintenance specifications

7.9 Soil Compaction

General

Soil is required to be compacted to 95% within the embankment for the wet pond retrofit. See Prince George's County Construction Manual for details about compaction.
Erosion Control Mats & Heavy Duty Mulch Mats will be used for the site access to limit soil compaction in the work area.

Specific Soil Compaction Controls

Equipment Used for trench compaction: jumping jack compactors, trench rollers, & asphalt smooth drum rollers	
Description: See Sediment Control Plans for installation specifications	
Installation	Built of hardwood timber 8, 10, or 12-inches thick and 8 to 40 feet long, these construction mats for wetlands are made to support heavy machinery
Maintenance Requirements	See Sediment Control Plans for maintenance specifications

7.10 Storm Drain Inlets

General

Inlet protection will be installed per the MDE Construction Standard Details.

Specific Storm Drain Inlet Controls

Curb & Standard Inlet Protection MDE Details	
Description: Inlet protection will be installed per the MDE Construction Standard Details.	
Installation	January 2025
Maintenance Requirements	Remove accumulated sediment after each rain event. See inlet protection standard details on plan set for additional maintenance specifications.

7.11 Compliance with Other Requirements

i. *Threatened and Endangered Species Protection. Include documentation required in Part III.A.2.n supporting your eligibility with regard to the protection of State threatened and endangered species and designated critical habitat.*
ii. *Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls. If you are using any of the following stormwater controls at your site, document any contact you have had with the Department for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR 144 - 147. Such controls would generally be considered Class V UIC wells:*
iii. *Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);*
iv. *Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow; and*
v. *Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).*

SECTION 8: CERTIFICATION AND NOTIFICATION

Instructions – Certification statement

The following certification statement must be signed and dated by a person who meets the requirements.

This certification must be re-signed in the event of a SWPPP Modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Title:	Sharon K. Freiland, PE	Senior Project Manager	
Signature and Date:			12/16/2024

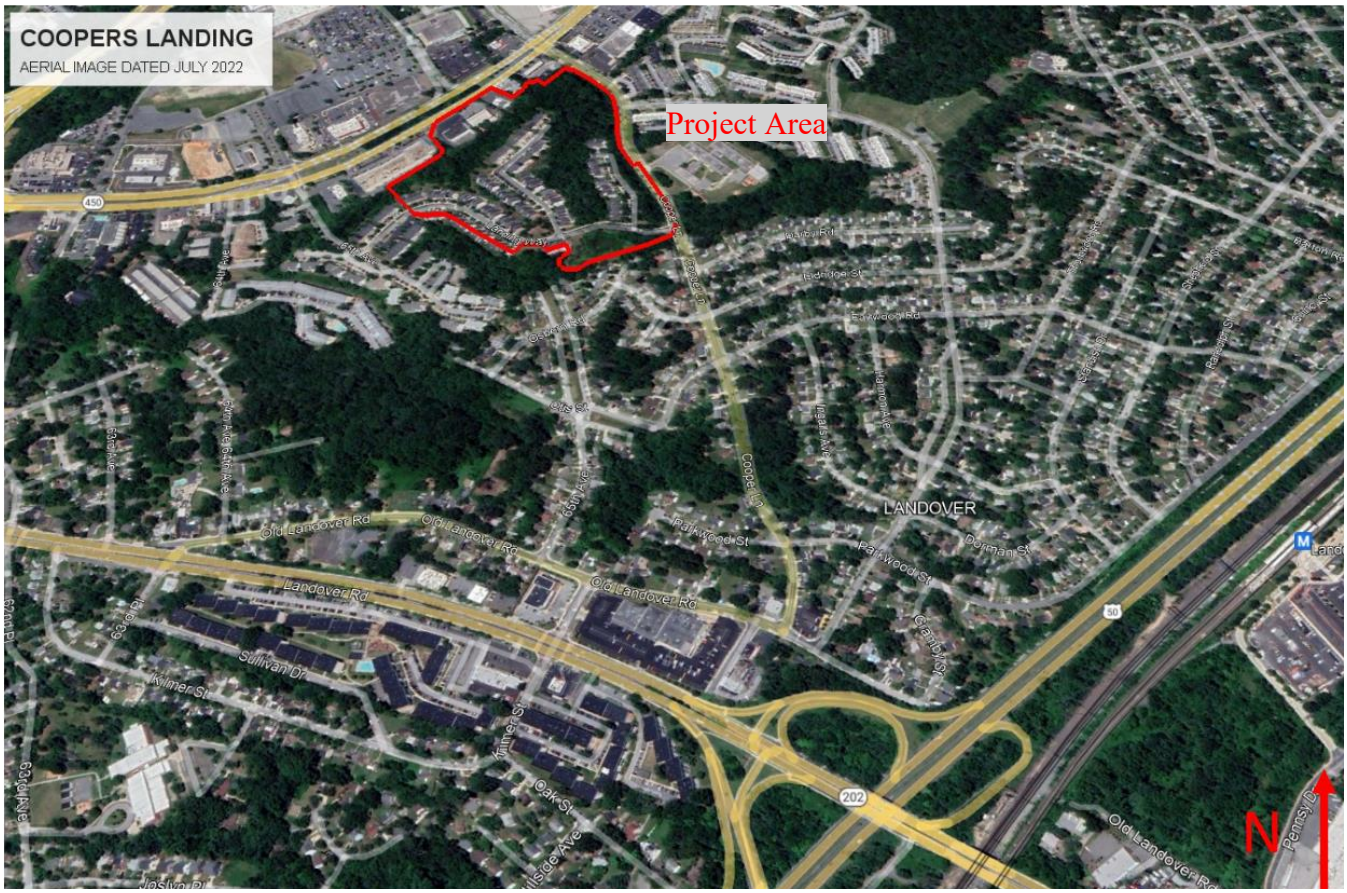
SECTION 9: Appendices

9.1 Amendment Log

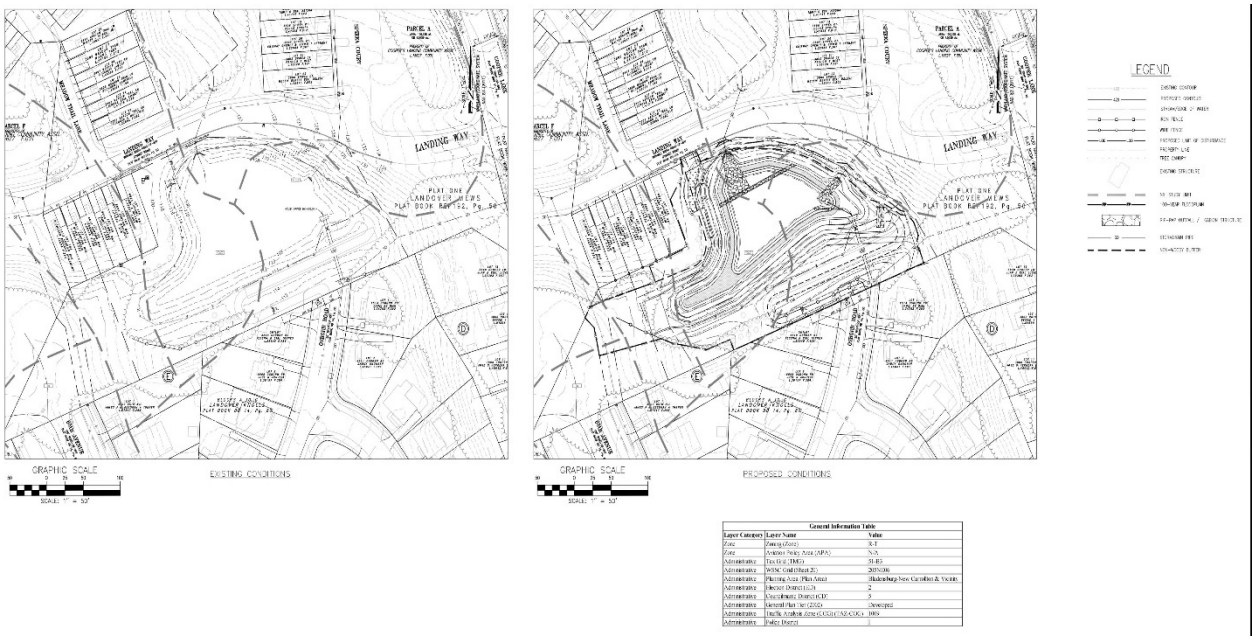
Use the table below to record any SWPPP Amendments.

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

9.2 Site Maps (Part III.F.2.d of the permit)



Vicinity Map



General Information Table		
Layer Category	**Layer Name**	**Value**
Zone	Zoning (Zone)	R-T
Zone	Aviation Policy Area (APA)	N/A
Administrative	Tax Grid (TMD)	31-B3
Administrative	WSSC Grid (Sheet 2)	205NE06
Administrative	Planning Area / Plan Area	Bladensburg-New Carrollton & Vicinity
Administrative	Election District (ED)	2
Administrative	Councilmanic District (CD)	5
Administrative	General Plan Tier (2035)	Developed
Administrative	Traffic Analysis Zone (COG) (TAZ-COG)	1009
Administrative	Police District	I

Site Map 1 Showing LOD, Environmental Features, & SWM Facilities

9.5 Grading and Stabilization Activities Log

Use the table below to record any grading/stabilization activities.

Date Grading Activity Initiated	**Description of Grading Activity**	**Description of Stabilization Measure and Location**	**Date Grading Activity Ceased** (Temporary or Permanent)	**Date When Stabilization Measures Initiated**
Date			Date ☐ Temporary ☐ Permanent	Date
Date			Date ☐ Temporary ☐ Permanent	Date
Date			Date ☐ Temporary ☐ Permanent	Date
Date			Date ☐ Temporary ☐ Permanent	Date

9.6 Rainfall Log

Use the table below to record the rainfall gauge readings at the beginning and end of each workday.

Month/Year			Month/Year			Month/Year		
Day	Start time	End time	Day	Start time	End time	Day	Start time	End time
1			1			1		
2			2			2		
3			3			3		
4			4			4		
5			5			5		
6			6			6		
7			7			7		
8			8			8		
9			9			9		
10			10			10		
11			11			11		
12			12			12		
13			13			13		
14			14			14		
15			15			15		
16			16			16		
17			17			17		
18			18			18		
19			19			19		
20			20			20		
21			21			21		
22			22			22		
23			23			23		
24			24			24		

Month/Year			Month/Year			Month/Year		
Day	Start time	End time	Day	Start time	End time	Day	Start time	End time
25			25			25		
26			26			26		
27			27			27		
28			28			28		
29			29			29		
30			30			30		
31			31			31		

9.6 SWPPP Training Log

You may use the sample below as a template to record specific personnel training.

Stormwater Pollution Prevention Training Log

Project Name:
Project Location:
Instructor's Name(s):
Instructor's Title(s):

Course Location	Date	Course Length (hours)

Stormwater Training Topic: *(check as appropriate)*

- ☐ **Sediment and Erosion Controls**
- ☐ **Stabilization Controls**
- ☐ **Pollution Prevention Measures**
- ☐ **Emergency Procedures**
- ☐ **Inspections/Corrective Actions**
- ☐ **Other:** _____ _____

Specific Training Objective:

Attendee Roster:

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

(attach additional pages as necessary)

Prince George's County
Department of Permitting, Inspections and Enforcement
INSPECTIONS DIVISION
9200 Basil Court, Suite 307
Largo, Maryland 20774
(301) 883–3820 ♦ FAX: (301) 883–3873

CONSTRUCTION INSPECTION REPORT

Site: _____ Inspector: _____ Date: _____

Permit #: _____ Expires: _____ ❑ Revision ❑ Renewal ❑ Required

SCD #: _____ Expires: _____ ❑ Revision ❑ Renewal ❑ Required

Notified Owner: _____ Contractor: _____ Other: _____

Inspection Type: ❑ Pre-Construction ❑ Complaint ❑ Meeting ❑ Routine ❑ Follow-up

Responsible Party On Site: ❑ Yes ❑ No **Site Activity:** ❑ Clearing ❑ Grading ❑ Site Work ❑ SWM ❑ Utilities ❑ Bldg. ❑ Road Const.

GENERAL

Initial Inspection (Approved)	❑ Yes	❑ No	❑ Okay to Enter Clearing/Grading Phase
Off-Site Sediment (Occurrence)*	❑ Yes	❑ No	❑ Obtain Reinspection

***Subject to $1,000/Day Fine**

EROSION & SEDIMENT CONTROL	**IN COMPLIANCE**		**RIGHT-OF-WAY INSPECTIONS**	**APPROVED**	
Sequence of Construction	❑ Yes	❑ No	Subgrade	❑ Yes	❑ No
TCP II Protection	❑ Yes	❑ No	Subbase	❑ Yes	❑ No
Limits of Disturbance (LOD)	❑ Yes	❑ No	Curb/Gutter	❑ Yes	❑ No
CBCA Protection	❑ Yes	❑ No	Underdrain	❑ Yes	❑ No
Stabilized Construction Entrance (SCE)	❑ Yes	❑ No	Proof Roll	❑ Yes	❑ No
Silt Fence/Super Silt Fence	❑ Yes	❑ No	Driveway Apron	❑ Yes	❑ No
Earth Dike/ A1 A2 A3 B1 B2 B3	❑ Yes	❑ No	Traffic Maintenance	❑ Yes	❑ No
Sediment Basin/Trap*	❑ Yes	❑ No	Base Paving	❑ Yes	❑ No
Stabilization/Temporary Permit	❑ Yes	❑ No	Intermediate Paving	❑ Yes	❑ No
Stone Outlet Structure (SOS)	❑ Yes	❑ No	Surface Paving	❑ Yes	❑ No
Inlet Protection/Std., Curb, at Grade	❑ Yes	❑ No	Punch List Repairs	❑ Yes	❑ No
Waterway Crossing	❑ Yes	❑ No	Subgrade/Sidewalks	❑ Yes	❑ No
Pipe Slope Drain	❑ Yes	❑ No	Core Results	❑ Yes	❑ No
E&S Control Removal (Authorized)	❑ Yes	❑ No	Rural Drainage Swales	❑ Yes	❑ No
Waste Materials	❑ Yes	❑ No	Subgrade	❑ Yes	❑ No

Correct the following on Sediment Trap/Basin No. _____

*A) Stabilize B) Baffle Board C) Weir D) Outfall E) Riprap Inflow Protection F) Safety Fence G) Restore Bottom Elevation
H) Riser I) Anti Vortex Device J) Emergency Spillway K) Barrel Pipe L) Trash Rack M) Dewatering Device N) Sump Pit

COMMENTS: _____

All items in non-compliance must be repaired in accordance with all applicable codes, standards, specifications, and the approved plans by the compliance date shown. Failure to comply may result in any or all of the following actions being taken on this site:

ENFORCEMENT ACTION TAKEN: ❑ **Violation Notice** ❑ **Stop Work Order** ❑ **Civil Citation/Amount: $** _____

Compliance Date: _____ **Extended From:** _____

_____ _____
Permittee Representative Signature *Date*

MANDATORY INSPECTIONS/SEQUENCE OF WORK.

The following sequence of inspections **ARE MANDATORY INSPECTIONS (4-290 Inspections & Supervision)**.
Obtain written Inspection approval prior to proceeding to each activity.

Pre-Construction Meeting
TCP II Inspection — Installation of Tree Conservation/Protection
Initial Inspection — Installation of all required Erosion & Sediment Controls to include Stabilization
Authorization to Clear/Grade — Upon written approval of Initial Inspection, okay to enter clearing/grading phase
Authorization to Remove Sediment Controls — Obtain written authorization from Inspector prior to removal of any E&S controls

FAILURE TO OBTAIN THESE INSPECTIONS WILL RESULT IN VIOLATIONS, STOP WORK ORDERS, AND FINES UP TO $1,000 PER DAY.

FOLLOW THE PLAN SEQUENCE OF CONSTRUCTION! Observe the requirements as they relate between the Woodland Conservation Plan — Type II, the Erosion and Sediment Control Plan, Storm Drain–Stormwater Management Plan, and the Grading/Site Development Plan. Obtain clarification from the Site Development Inspector as to which work items can be done simultaneously, if any.

EROSION & SEDIMENT CONTROLS STANDARDS. Adhere closely to plan details for each erosion and sediment control device. Observe all relative methods, specifications, elevations and dimensions. Each device required should have detail in the plan. Refer to the latest edition of the *Maryland Standards and Specifications for Erosion and Sediment Control*. These are the MINIMUM requirements — **NO EXCEPTIONS.**

DO NOT GO BEYOND THE APPROVED LIMITS OF DISTURBANCE! Buffer areas, wetland/floodplain areas and tree/vegetative save areas are to be protected to prevent disturbance. If unauthorized disturbance has occurred, notify the Site Development Inspector immediately to resolve the matter. ***Note:*** It is the responsibility of the owner/permittee to utilize the necessary resources to verify the location of tree save areas and limits of disturbance are in full compliance with the approved plans.
INITIAL CLEARING WORK ONLY FOR EROSION AND SEDIMENT CONTROLS.

INITIAL INSPECTION APPROVAL. Mandatory Inspection. After erosion and sediment controls have been installed and stabilized, **obtain written inspection approval prior** to any further disturbance or grading and subsequent site development.

EXCAVATIONS. The sides of temporary excavations and trenches made for foundations, buildings and utility installations shall be protected, shored or sloped as required by regulations of the Maryland State Department of Labor and Industry. The toll-free number in Maryland is 1–800–492–6226.

STABILIZATION. **Very important. Seed, Lime Fertilizer, Mulch, & Tack. Hydro-seeding or Sod.**
STABILIZATION IS THE BEST DEFENSE AGAINST EROSION — AND REDUCES MAINTENANCE COSTS. Erosion and Sediment Controls must be stabilized within **3 days**. Areas that have been disturbed and are not actively being worked as well as areas that are on final grade must be stabilized within **7 days**. Stabilization requirements are detailed in the plan. Unless otherwise indicated, areas to be stabilized shall require four inches of topsoil and other soil amendments as necessary. Refer to Stabilization Notes and Details on Plans.

KEEP STREETS, CURBS, GUTTERS, AND SIDEWALKS CLEAN AT ALL TIMES. If mud is tracked onto a street, do not hose into any storm drain unless the storm drain outfalls into an approved erosion and sediment control device. Sediment tracked onto streets is subject to immediate issuance of a civil citation up to $1,000 per day.

TRANSITION FROM ROUGH GRADE TO FINAL GRADE. Sites that are opened and mass graded under a Rough Grading Permit are required to revise the Grading Permit to a Fine Grade/Site Development Permit prior to initiating other site work such as house construction, recreational areas, athletic fields, tot-lots and hiker/biker trails or other site amenities pursuant to an approved Site Plan.

SCD (EROSION & SEDIMENT CONTROL PLANS) PLANS/UPDATE & RENEWAL. Approved SCD plans remain valid for two (2) years, (except surface mines and landfill plans, which remain valid for five (5) years). It is the responsibility of the Permittee to maintain current SCD plans until Final acceptance of the permit. (Subtitle 4, Division 3, 4-299, & COMAR 26.17.01.08F.09C)

MAINTENANCE OF EROSION & SEDIMENT CONTROLS/SELF-DIRECTED REPAIRS. **Very Important.** Maryland State Law (COMAR 26.09.01.06) requires "responsible personnel" (*i.e.*, owner, contractor, foreman, superintendent, project engineer, etc.) who is in charge of on-site clearing and grading operations or sediment control associated with a project shall hold a current State Certificate of Training in Erosion & Sediment Control. It is further required that "Self-Directed Repairs" of on-site erosion & sediment controls be implemented by the Permittee. This person shall inspect the erosion and sediment controls on a daily basis and make self-directed repairs in accordance with the approved plans and specifications. Consult with the Inspector if there are any questions or necessary changes to the plans. **FAILURE TO MAINTAIN E&S CONTROLS WILL RESULT IN VIOLATIONS, STOP WORK ORDERS, AND FINES UP TO $1,000 PER DAY.**

SEPTIC SYSTEMS. **Very Important.** Sites utilizing Septic Systems must pay particular attention to the proposed limits of disturbance of septic areas. Encroachment or disturbance in these areas may result in significant delays or suspension of permit. It is the responsibility of the permittee to obtain all necessary inspections from the Health Department. Any questions regarding septic systems may be referred to the Health Department at (301) 883–7681.

PERMITS/PLANS. All work must be performed in accordance with the approved plans, Code, Standards and Specifications, and completed within the time frame of the Permit. It is the responsibility of the Permittee to maintain current plans, to include all applicable revisions and permits.

FILLS. Areas receiving FILL under a grading permit, which are shown on the approved plan as supporting structures or pavement, must be properly placed and compacted as required for that class of fill and be certified by a Maryland Registered Professional Engineer. Fill must be placed in locations as noted on the approved permitted grading and/or site development plan — any changes require plan/permit revision.

CERTIFICATIONS & REPORTS. ***Certifications shall be signed and sealed by a Maryland Registered Professional Engineer.***
Any work requiring Certification and/or Reports pursuant to Code and/or at the discretion of the Director shall be submitted within thirty (30) days of completion, including but not limited to: Fills, Grading, Storm Drain & SWM Systems, Pipes, Structures, Embankment/Core Trench, Anti-Seep Collars, Concrete, Retaining Structures, Reforestation, CBCA, Landscaping ADA/Handicap, and Site Development. Certifications shall attest that all work has been completed in accordance with the approved plan, specifications, and the Prince George's County Code.

Prince George's County
Department of Permitting, Inspections and Enforcement
INSPECTIONS DIVISION
9200 Basil Court, Suite 307
Largo, Maryland 20774
301.883.3820 ◆ FAX: 301.883.3873

CORRECTION ORDER

Address: _____

Permit #: _____ Date: _____

Type of Inspection: _____

The discrepancies listed below require correction in order to pass inspection.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

❑ Reinspection Fee $ _____

❑ Special Investigation Fee $ _____

(Please note this may not be a complete listing.)

For inspection requests, call our Interactive Voice Response system (IVR) at 301.755.9000.

Inspector: _____
(Signature & ID #)

Phone #: _____
(Between 7:00 a.m. and 9:00 a.m. only)

HaloKlear®

PRODUCT FACTS

BHR-P50

HYBRID FLOCCULANT

Description

HaloKlear's unique hybrid flocculant, **BHR-P50**, offers a greener alternative to commodity chemicals. Our blend is free of acrylamide monomers and is part of our continued efforts to innovate towards more eco-friendly water treatment solutions. From industrial wastewater clarification to nutrient control in ponds and lakes, **BHR-P50** offers a wide range of performance benefits without increasing costs.

Industry Applications

- Stormwater management
- Construction
- Environmental Water remediation

Deployment Method

The liquid **BHR-P50** is deployed similar to commodity polyaluminum chloride. Typical application uses metering pumps. **BHR-P50** can be applied using several delivery methods, including semi-passive and active systems.

Packaging

Lot Number must be legible on each container. Container types: 275-gallon IBC tote with camlock or threaded outlet or 55-gallon drum.

Handling and Storage

All containers must be free of leaks, damage, and gross contamination. Product should be maintained between 40˚F and 90˚F. Keep from freezing.

Product Benefits

- **High Shear Strength & Filterability**
- **Dense Floc That is Easily Dewaterable**
- **Low Bioaccumulation of Inorganic Salts**
- **Low Ecotoxicity Profile**
- **Effective Across a Wide Spectrum of pH and Salinity.**
- **Tested & Approved to Standard 60 for Drinking Water Treatment**

Product Properties

Appearance	Homogenous white-to-yellow opaque liquid
Viscosity	500 – 1,300 cP
Specific Gravity	0.95 – 1.15
pH	2.3 – 3.7
LC50 fish 1	3222 ppm Rainbow Trout; 96 hour

Field Handling Recommendations

Keep out of direct sunlight. Some separation may occur but will not affect performance. For more information, contact your Dober representative.

Safety Data

BHR-P50 is a corrosive substance. Before handling this material read the corresponding Material Safety Data Sheet for safety and health data.

For additional information contact Dober at:
(800) 323-4983
info@dober.com
www.dober.com/water_treatment

CHEMICAL ENHANCED FILTRATION

RFR PERSONNEL TRAINING
CLASS ROOM TRAINING

1-FILTRATION THEORY AND APPLICATION

2-VACUUM TEST KIT TRAINING

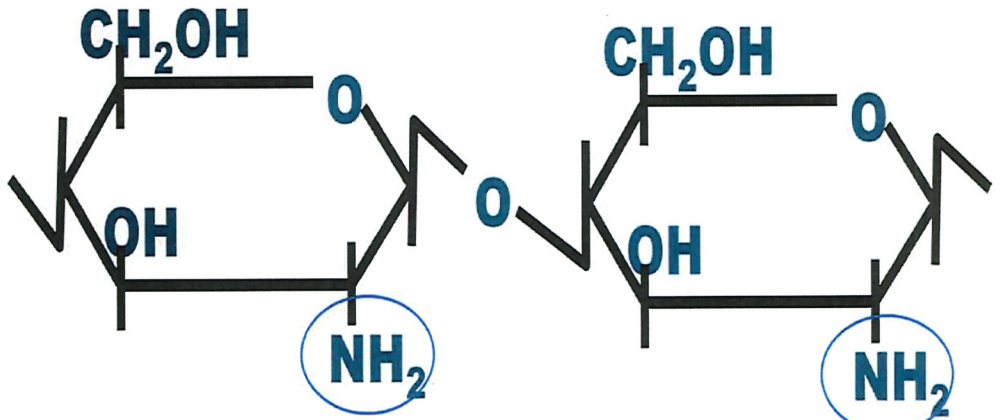
3-WATER SAMPLE BENCH TESTING W AND W/O CHEMICAL ENHANCEMENT

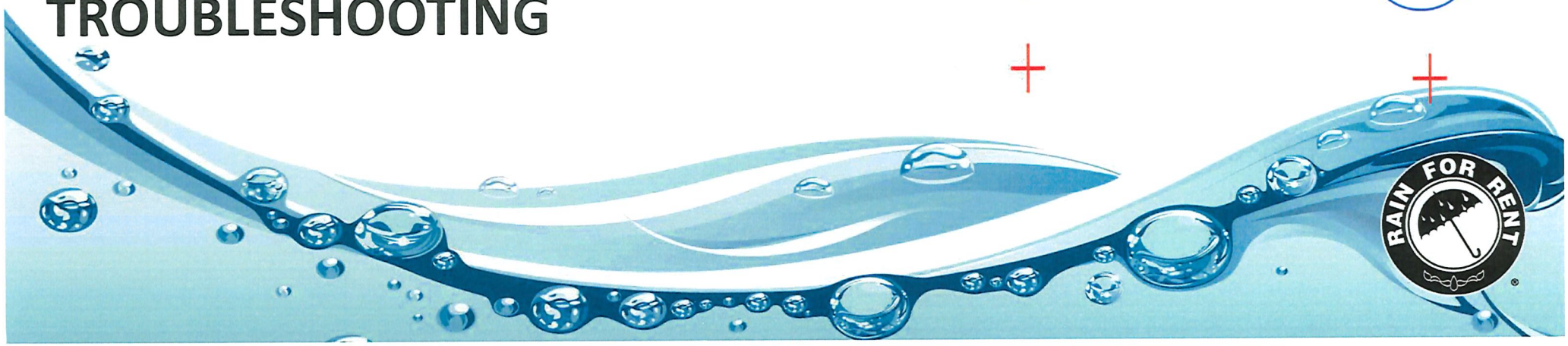
4-FILTRATION TROUBLESHOOTING

Polyglucosamine (Chitosan)

Structure

A cationic polysaccharide biopolymer





RFR PERSONNEL TRAINING
FIELD TRAINING

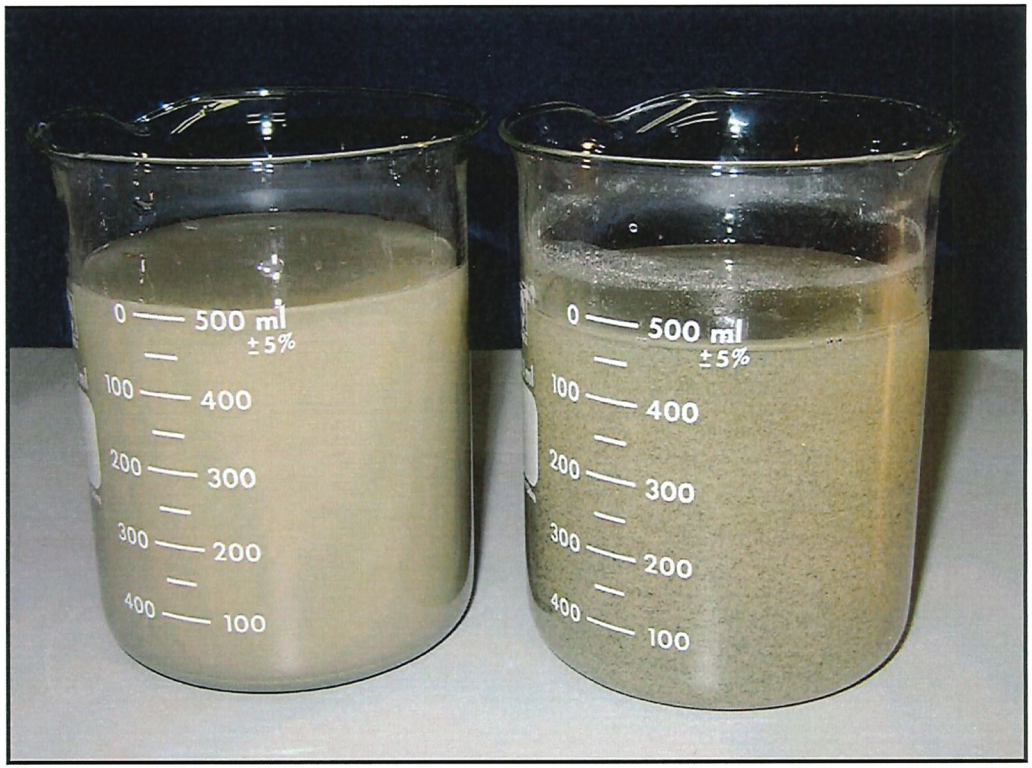
1- FILTRATION SYSTEM OPERATION

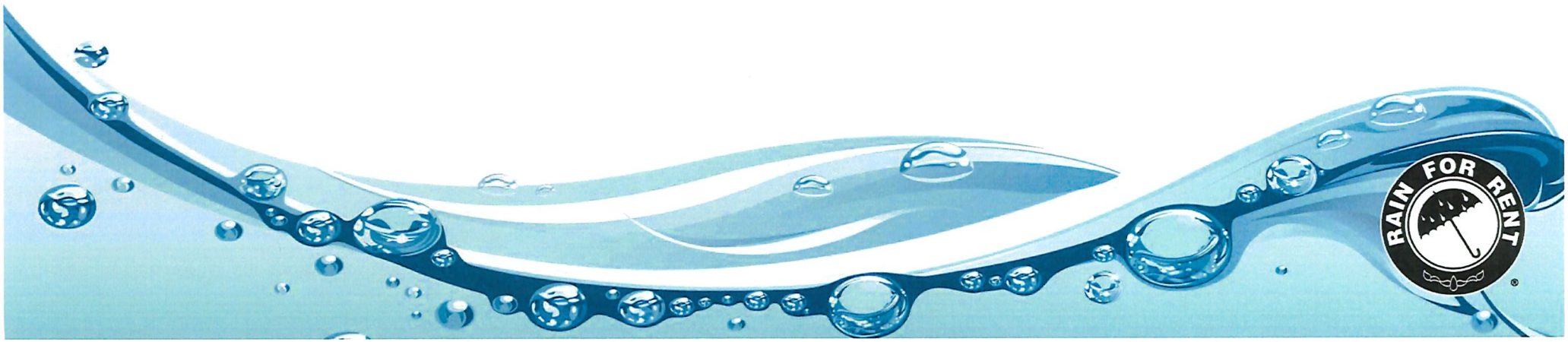
2-FILTRATION SYSTEM TROUBLESHOOTING

3-RESIDUAL TEST KIT

4-FIELD SAMPLE TESTING

5-OPERATION LOGS





RFR PERSONNEL TRAINING
FIELD TRAINING

RESIDUAL TEST KIT

FIELD TEST EQUIPMENT

Actual Field Results

Blank

0.2 mg/l field spike

RAIN FOR RENT®

RAIN FOR RENT
BALTIMORE
WESTERN OILFIELDS SUPPLY CO.

7677 Rolling Mill Rd
Baltimore, MD 21224
TELEPHONE: (410) 282 - 4486
FAX: (410) 282 - 4486

July 28, 2025

Dirt Plus LLC / Rain for Rent Pumps, Tanks, & Filtration - Coopers Landing
Project Site Location: 6508 Osborn Rd, Hyattsville, MD

Topic: Procedures for storm water pond dewatering and turbidity reduction filtration system (Pollution Prevention Plan) procedures to be followed by Rain for Rent technicians when fine silty clay laden suspended sediment particles make up a high % of jobsite storm water AND demonstrated traditional means & methods cannot meet 20-CP NTU standard of less than 150.

Rain for Rent's storm water dewatering and filtration system will utilize Rain for Rent (RFR) / Dober Chemical trained technicians (see separate document for RFR training), dewatering and transfer pumps, BHR-P50 flocculant and injection system, sediment weir settling tank, sediment bag filtration skid, high efficiency sediment filter bags, hoses, valves and fittings to dewater and maintain low level in existing storm water pond while reducing turbidity to below 150 NTU for discharge.

To accomplish this task, Rain for Rent will use the following:

- 2" 115v electric submersible dewatering pump installed into customer's dewatering sump (filter fabric wrapped and buried in stone)
  - Dewater storm water pond via low point sump and discharge through flocculant injection / static mixing system prior to treated water entering one (1) 5,000 gallon baffled settling weir tank.
- 3" Flowmeter with totalizer to monitor flow rate into and out of water filtration system
- BHR P50 flocculant - chosen as the most effective flocculant during jar testing site specific water
  - Causes coagulation / enlargement of very fine silty clay suspended sediment particles that don't settle or don't settle in a reasonable amount of time. In cases like this, turbidity reduction to below 150 NTU is nearly impossible without the use of flocculants. The 275-gallon leak proof tote of liquid BHR P50 flocculant will be stored on site inside of a spill containment berm for added protection.
- Floc Metering Injection Pump
  - Accurately doses predetermined PPM concentration (based on actual site water jar testing) of flocculant into discharge side of stormwater sump dewatering pump just upstream of a static mixer prior to stormwater entering the 5,000-gallon settling weir tank.
- Static Mixers
  - Ensures that BHR P50 evenly mixes with stormwater before entering settling weir tank.
- One (1) 5,000 gallon Weir Tank
  - Under / Over baffled sediment weir tank expedites passive settling after flocculant injection
- 2" 115v electric submersible dewatering pump installed at discharge end of weir tank
  - Transfer enlarged fine silty sediment particles that have not settled in weir tank yet from the weir tank through a sediment bag filter skid unit to remove post-floc enlarged sediment particles from stormwater, hence reducing storm water turbidity

- One (1) BF400 Bag Filter Skids
  - Traps post treated fine sediment laden stormwater particles now large enough to be filtered via 25 micron or 10 micron size high efficiency filter bags

- Rain for Rent crew installation of stormwater dewatering, floc and filtration system

- Rain for Rent trained filtration technician on site responsibilities:

  - Jar testing for flocculant dosing rate calculations. Periodic recalculation of optimal dosage rate based on influent and effluent monitoring of pH and turbidity will be performed.

  - Depressurize Bag Filter and change filter bags when inlet → outlet pressure differential reads 20 psi.

  - Operate, maintain and monitor and record turbidity, pH and temperature water quality testing, written and photo documentation, reporting and notification of water quality changes. Hach water quality probes will be used.
    - Daily testing during pumping; weekly standards recalibration

  - Perform and maintain BHR P50 residual aluminum testing and documentation schedule
    - Residual test for aluminum will be performed within 1st hour of chemical use and every 4 hours thereafter.

How dosing / injection rate of BHR P50 is determined per the manufacturer (see EXAMPLE table below to be used). Please note that 50 GPM is the maximum dewatering flow rate calculated planned for this project:

Flow Rate (GPM)	BHR P50 Dose Rate	BHR P50 Dose Rate	BHR P50 Dose Rate	BHR P50 Dose Rate
	78.4 mg/L (100 PPM)*	200 mg/L (200 PPM)	300 mg/L (300 PPM)	400 mg/L (400 PPM)
50 GPM	.3 GPH	.6 GPH	.9 GPH	1.2 GPH
75 GPM	.5 GPH	.9 GPH	1.4 GPH	1.8 GPH
100 GPM	.6 GPH	1.2 GPH	1.8 GPH	2.4 GPH
200 GPM	1.2 GPH	2.4 GPH	3.6 GPH	4.8 GPH
300 GPM	1.8 GPH	3.6 GPH	5.4 GPH	7.2 GPH
400 GPM	2.4 GPH	4.8 GPH	7.2 GPH	9.6 GPH

During water filtration, Rain for Rent filtration technicians will monitor and document discharge water turbidity (NTU), pH and temperature using water quality meters.

***PLEASE NOTE: 50 gallons per minute (GPM) in manufacturer's chart above is the design point for this project**

The residual test for BHR-P50 determines the presence of free (unreacted) P50 flocculant. Potential residual P50 in discharge water can be identified using this specific residual test kit down to a 0.1 parts per million (ppm) discharge water concentration level. Please note, when BHR-P50 reacts with sediment particles these particles are chemically bonded together and become exponentially larger. This flocculant bonds with the sediment. The sediment stays either in the bottom of the 5,000-gallon settling tank and any remaining is trapped mechanically in the downstream bag filter skid by 10 micron / 5 micron filters. A **BHR-P50 Residual Test Kit** will be used during discharge monitoring to detect any presence of a trace **(as low as 0.1 PPM)** level of BHR-P50 (aluminum) at **END OF PIPE** discharge outfall. Residual testing will be performed within the 1st hour of chemical use and every 4 hours thereafter. It is important to note that the maximum concentration of P50 flocculant rate limit of 78.4 PPM is for END OF PIPE, not for beginning of the water treatment system that traps flocculant bonded sediment. As an additional measure of protection, in the unlikely event that a "positive" residual BHR-P50 result is detected, the water treatment technician will perform the following "corrective action": close discharge valve and **recirculate** the discharge water to the beginning of the treatment process (beginning of weir settling tank) until a "negative" residual BHR-P50 result is achieved. Once this corrective action has been successfully performed, the discharge valve will be reopened.

CLEAN WATER. NATURALLY.

HaloKlear®
NATURAL FLOCCULANTS

BHR-P50 TEST INSTRUCTIONS

Method for the Determination of
Residual Aluminum in Treated Water.

DOBER

DESCRIPTION:

Described is the method for the determination of residual Aluminum in treated water. This method is only valid for water treated with hybrid products such as BHR-P50.

This method is based on the development of a color change during the chemical reaction between aluminum and Eriochrome Cyanine R. A pink to red color will form when aluminum reacts with Eriochrome Cyanine R.

When using Eriochrome Cyanine R dye, soluble dilute aluminum solutions at pH of 6.0 produce a red to pink complex. The intensity of the developed color is influenced by the aluminum concentration, reaction time, temperature, pH, alkalinity, and concentration of certain other ions in the sample.

For this method the LaMotte Aluminum test kit will be used. This test kit has all the materials needed for the detection of aluminum in water. The range and sensitivity for this test kit is 0 - 0.5 ppm Al3+ in distinct concentrations of 0, 0.1, 0.15, 0.2, 0.25, 0.3, 0.4, 0.5 ppm Al3+. The reading in the LaMotte test kit must be multiplied by 3 when aluminum is in the form of polyaluminum chloride from BHR-P50. Therefore, aluminum concentrations determined by the HaloKlear test kit go from 0, 0.3, 0.6,…up to 1.5 ppm in increments of 0.3 ppm.

WHEN TO PERFORM TESTING:

Testing for residual aluminum should be repeated as often as necessary to remain in compliance with the permit-required schedule for effluent water quality testing, and in accordance with Federal, State or local regulations. In addition, retesting should be performed any time there is a significant change to the system. These changes can include, but are not limited to, changes in flow or quality of influent water, such as those caused by weather events, or the changes may be major equipment alterations. Retesting may also be required by adjustments to the effluent water quality standards.

PURPOSE:

The method is for use as a field test to determine if the residual aluminum concentration in post-treatment water is above or below 0.3 mg/L. Results that indicate residues that exceed 0.3 mg/L signal that further inspection and maintenance is needed in the storm water clarification system.

EQUIPMENT AND MATERIALS:

- (2) 125 ml container with lids (supplied)
- (1) Glass fiber filter (25 mm, 100 count), Ahlstrom Grade 161, Cat # 1610-0250 (supplied)
- (1) Filter holder (25 mm) (supplied)
- (1) Syringe 1 ml (supplied)
- (1) Syringe 20 ml (supplied)
- (1) Syringe 10 ml (supplied)
- LaMotte Aluminum Test Kit, Order Code: 3569-01 (supplied)
- HaloKlear BHR-P50 solution (supplied)
- Distilled or de-ionized water (not included)

NOTES:

- Equivalent equipment may be used.
- The filter holder (25mm) is intended to be reused.
- The filter holder must be thoroughly clean and dry between uses.
- The syringes can be reused if thoroughly cleaned.
- The 125 ml cups may be reused if thoroughly cleaned.
- The glass fiber filters are for one time use only and not to be reused.

SAFETY WARNING!

Use caution when handling any chemicals. Wear correct personal protection when performing this procedure. Dispose of all chemicals properly following all local, state, and federal regulations.

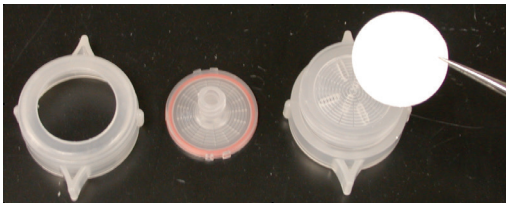
PROCEDURE:

The individual that will perform field-testing should familiarize themselves with this method and with the expected color change results. All field testers should run this method in a controlled environment before attempting the test in the field.
The assessment is performed by testing a blank clean water solution, and an Aluminum containing solution with known Aluminum concentration. This method is used to determine whether Aluminum is in solution and is above the target concentration of 0.3 mg/L (ppm).

PART 1: *Background Sample – Determining amount of naturally occurring aluminum*

Step 1: Collect a background sample of the water to be tested prior to any treatment with BHR-P50, label accordingly.

Step 2: Load a new clean glass fiber filter into the clean 25 mm filter holder and secure (as shown in the picture to the right).



Step 3: Fill the 10 ml syringe with the background sample and then attach the filter holder from **Step 2**. Filter a total of 10 ml through the filter and collect the filtrate into a clean test tube from the LaMotte Aluminum test kit.

Step 4: Immediately perform **Part 5**.

Step 5: Record results *(see HaloKlear spreadsheet)*.

PART 2: *Treated Field Sample – Determining if any residual BHR-P50 flocculant is in effluent*

Step 1: With treated sample repeat **Steps 1 – 4** in **Part 1** including LaMotte Test **Part 5**.

Step 2: Record results *(see HaloKlear spreadsheet)*.

PART 3: *Blank Solution (No Aluminum)*

Step 1: Fill a clean test tube from the LaMotte Aluminum test kit with 10 mL of new clean **distilled** or **de-ionized** water, label accordingly.

Step 2: Immediately perform **Part 5**.

Step 3: Record results *(see HaloKlear spreadsheet)*.

PART 4: *Standard Solution 0.3 mg/L (0.3 ppm) Aluminum [BHR-P50 does 10 mg/L]*

Step 1: Using the 20 ml syringe (multiple times) carefully add 99 ml total of **distilled** or **de-ionized** water to a clean 125 ml container.

Step 2: Place a clean 1 ml syringe into the bottle of BHR-P50. Slowly draw up the BHR-P50 to exactly the 1 ml mark.

Step 3: Dispense the 1 ml of BHR-P50 into the 125 ml container with the clean water and mix well. Label accordingly.

Step 4: Using the 20 ml syringe (multiple times) carefully add 99 ml total of distilled or de-ionized water to another clean 125 ml container.

Step 5: Place a clean 1 ml syringe into the solution from **Step 3** and slowly draw up the solution to exactly the 1 ml mark.

Step 6: Dispense the 1 ml of solution from **Step 3** into the other clean 125 ml container with the clean distilled or de-ionized water and mix well. Label accordingly.

Step 7: Place a clean 10 ml syringe into distilled or de-ionized water and slowly draw up the water to exactly the 9 ml mark.

Step 8: Place the 10 ml syringe with 9 ml of clean distilled or de-ionized water from **Step 7** into the solution from **Step 6** and slowly draw up the syringe to exactly the 10 ml mark and then mix well.

Step 9: Add the solution from **Step 8** into a clean test tube from the LaMotte Aluminum test kit.

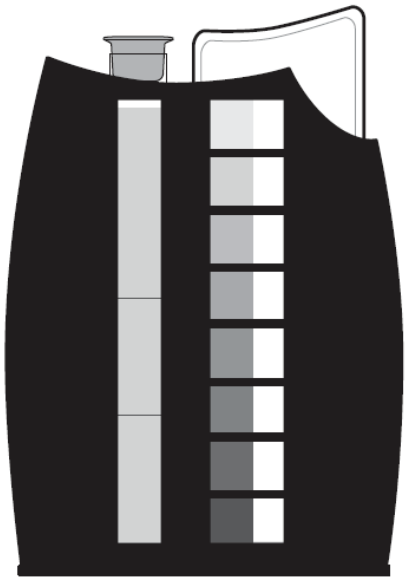
Step 10: Immediately perform **Part 5**.

Step 11: Record results *(see HaloKlear spreadsheet)*.

PART 5: *LaMotte Aluminum Test Kit Method*

ALUMINUM KIT
OCTA-SLIDE 2, 0-0.5 PPM
CODE 3569-01

Quantity	Contents	Code
50	Aluminum #1 Tablets	3943-II
50	Aluminum #2 Tablets	3944-II
2	Test Tubes, 10 ml, glass, w/cap	0822
1	Tablet Crusher	0175
1	Aluminum Octa-Slide 2 Bar, 0-0.5 ppm	7400-01
1	Octa-Slide 2 Viewer	1101



The Octa-Slide 2 Viewer should be held so non-direct light enters through the back of the Viewer. Insert the reacted sample into the top of the Viewer. Slide the Octa-Slide 2 Bar into the Viewer and match the color of the reaction to the color standards.

SAFETY WARNING!
This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

PROCEDURE CONTINUED:

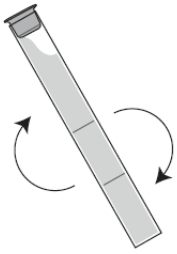
PART 5: *LaMotte Aluminum Test Kit Method*

1. Fill test tube (0822) to the 10 ml line with sample water.

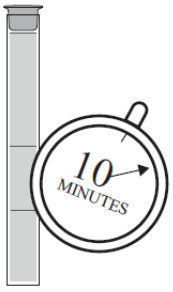
2. Add one Aluminum #1 Tablet (3943). Crush with tablet crusher (0175) to disintegrate.

3. Add one Aluminum #2 Tablet (3944). Crush with tablet crusher (0175) to disintegrate.

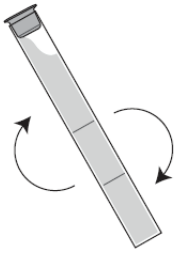
4. Cap and Mix.



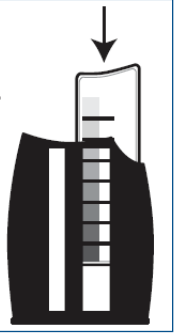
5. Wait 10 minutes.



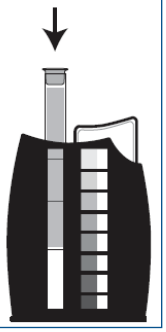
6. Mix the solution.



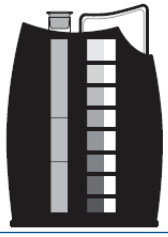
7. Insert Aluminum Octa-Slide 2 Bar (7400-01) into the Octa-Slide 2 Viewer (1101).



8. Insert test tube into Octa-Slide 2 Viewer.



9. Match sample color to a color standard. Record as ppm Aluminum.



RESULTS:

The picture below and to the left shows the LaMotte color test results for 0.0 ppm Aluminum. And the picture below and to the right shows the LaMotte color test results for 0.1 ppm Aluminum.

PART 6: *Calculations*

Step 1: Subtract background detected aluminum from **Part 1, Step 5** from treated sample detected aluminum result recorded in **Part 2, Step 2** *(see HaloKlear spreadsheet)*.

Step 2: Take the amount of Aluminum **detected** from **Part 6, Step1** and multiply by 3 to get the **total** amount of Aluminum in the treated sample *(Zero or negative calculation indicates reduction or elimination of total aluminum)*.

PART 7: *Results*

Step 1: Report the **total** amount of Aluminum calculated from **PART 6, Step 2** for the Treated Field Sample *(see HaloKlear spreadsheet)*.

Step 2: The **total** amount of Aluminum calculated from **PART 3, Step 3** should be 0.0 ppm. If not test again, remake the solutions if necessary.

Step 3: The **total** amount of Aluminum calculated from **PART 4, Step 11** for the Standard Solution should be 0.3-0.6 ppm. If not test again, remake the solutions if necessary.

PRODUCT FACTS

BHR-P50
HYBRID FLOCCULANT

Description

HaloKlear's unique hybrid flocculant, **BHR-P50**, offers a greener alternative to commodity chemicals. Our blend is free of acrylamide monomers and is part of our continued efforts to innovate towards more eco-friendly water treatment solutions. From industrial wastewater clarification to nutrient control in ponds and lakes, **BHR-P50** offers a wide range of performance benefits without increasing costs.

Industry Applications

- Stormwater management
- Construction
- Water remediation

Deployment Method

The liquid **BHR-P50** is deployed similar to commodity polyaluminum chloride. Typical application uses metering pumps. **BHR-P50** can be applied using several delivery methods, including semi-passive and active systems.

Packaging

Lot Number must be legible on each container. Container types: 275-gallon IBC tote with camlock or threaded outlet, 55-gallon drum or 5-gallon pail.

Handling and Storage

All containers must be free of leaks, damage, and gross contamination. Product should be maintained between 40˚F and 90˚F. Keep from freezing.

Product Benefits

- **High Shear Strength & Filterability**
- **Dense Floc That is Easily Dewaterable**
- **Low Bioaccumulation of Inorganic Salts**
- **Low Ecotoxicity Profile**
- **Effective Across a Wide Spectrum of Variables, including pH, salinity, etc.**

Product Properties

Appearance	Homogenous white-to-yellow opaque liquid
Viscosity	500 – 1,300 cP
Specific Gravity	0.95 – 1.15
pH	2.3 – 3.7
LC50	392 ppm C Dubia, 48 hour acute

Field Handling Recommendations

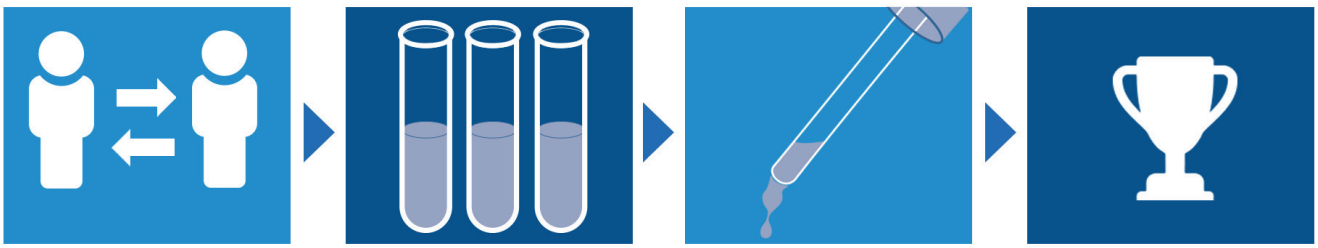
Keep out of direct sunlight. Some separation may occur but will not affect performance. For more information, contact your Dober representative.

Safety Data

BHR-P50 is a corrosive substance. Before handling this material read the corresponding Material Safety Data Sheet for safety and health data.

CAN'T FIND THE RIGHT DOSAGE? CONTACT US!

OUR PROCESS



Tell us about your treatment needs

Send us your water and we'll provide you with a solution to your problem or we can send product samples to you for testing.

Add our solution to your treatment process, problem solved.

Use our residual test kit to prove the results.

VALIDATE RESULTS ON THE SPOT!

With HaloKlear's Residual Test Kit, you can prove, onsite, that no residual chemistry is being released back into the environment. View results in 10 minutes or less, at a cost of only a few dollars per test!

HaloKlear®
NATURAL FLOCCULANTS

For additional information contact us at: 800.323.4983
info@dober.com • www.dober.com/water_treatment

HaloKlear's portfolio consists of 100% biodegradable chitosan-based, natural flocculants as well as iron-and sulfate-free hybrid flocculants. HaloKlear technologies address a wide variety of pollutants and contaminant types, including total suspended solids, algae, hydrocarbons, heavy metals, oils and organic compounds.

DOBER

Line	Instruction	Example 1	Example 2	Test Data 1	Test Data 2	
A	Record effluent aluminum concentration	0.2	0.1			mg/L
B	Record background aluminum concentration	0.3	0			mg/L
C	Subtract B from A	-0.1	0.1			mg/L
D	Multiply C times 3*	0	0.3			mg/L of BHR-P50 residual

* if number is zero or negative enter “0” in line D

HaloKlear®
NATURAL FLOCCULANTS

HaloKlear BHR-P50

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 3/2/2016 Revision date: 4/3/2025 Supersedes: 2/28/2025 Version: 2.2

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : HaloKlear BHR-P50
Product code : 301420-05

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Flocculates solids
Recommended use : Flocculant

1.3. Supplier

Manufacturer
Dober Chemical Corp.
543 Forest Road
Hazle Township, PA, 18202
USA
T 630-410-7300 - F 630-410-7444
regulatory@dober.com - www.dober.com

1.4. Emergency telephone number

Emergency number : 1-800-255-3924 / 1-813-248-0585
ChemTel

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1	H290	May be corrosive to metals
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H290 - May be corrosive to metals
H318 - Causes serious eye damage
Precautionary statements (GHS US) : P234 - Keep only in original container.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a doctor.
P390 - Absorb spillage to prevent material-damage.
P406 - Store in corrosive resistant container with a resistant inner liner.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

16% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
16% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Aluminum chloride hydroxide sulfate	CAS-No.: 39290-78-3	10 – 30	Met. Corr. 1, H290 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects after eye contact : Causes serious eye damage.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

None known. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Absorb spillage to prevent material-damage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well-ventilated place. Keep container closed when not in use.

Incompatible products : Strong acids. Strong bases.

Incompatible materials : Direct sunlight.

Packaging materials : Store in corrosive resistant container with a resistant inner liner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Hand protection:
Wear protective gloves.

Eye protection:
Chemical goggles or safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary

Personal protective equipment symbol(s):

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Yellow to amber
Odor	:	odorless
Odor threshold	:	No data available
pH	:	3 – 3.5
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. metals. May be corrosive to metals.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

HaloKlear BHR-P50	
Unknown acute toxicity (GHS US)	16% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 16% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Aluminum chloride hydroxide sulfate (39290-78-3)	
LD50 oral rat	> 5000 mg/kg (Source: IUCLID)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
LC50 Inhalation - Rat	> 5 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 3 – 3.5
Serious eye damage/irritation : Causes serious eye damage.
pH: 3 – 3.5
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects after eye contact : Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

HaloKlear BHR-P50	
LC50 - Fish [1]	3222 ppm O.mykiss (rainbow trout); 96 hour
EC50 - Crustacea [1]	392 ppm Ceriodaphnia; 48 hour
NOEC chronic fish	1389 ppm O. mykiss (rainbow trout)
NOEC chronic crustacea	781.2 ppm Ceriodaphnia

12.2. Persistence and degradability

HaloKlear BHR-P50	
Persistence and degradability	Not established.

Aluminum chloride hydroxide sulfate (39290-78-3)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

HaloKlear BHR-P50	
Bioaccumulative potential	Not established.

Aluminum chloride hydroxide sulfate (39290-78-3)	
Partition coefficient n-octanol/water (Log Pow)	< 3

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecological information : None known.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

UN-No.(DOT) : Non Regulated when transported in packaging constructed of materials that will not react dangerously with or be degraded by the material.

UN-No. (IMDG)	:	3264
UN-No. (IATA)	:	3264

14.2. UN proper shipping name

Proper Shipping Name (DOT)	:	Not applicable.
Proper Shipping Name (IMDG)	:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Aluminum Chloride Hydroxide Sulfate)
Proper Shipping Name (IATA)	:	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum Chloride Hydroxide Sulfate)

14.3. Transport hazard class(es)

Class (DOT)	:	Not applicable.
	:	
Transport hazard class(es) (IMDG)	:	8
Hazard labels (IMDG)	:	8
	:	
Transport hazard class(es) (IATA)	:	8
Hazard labels (IATA)	:	8
	:	

14.4. Packing group

Packing group (DOT)	:	Not applicable.
Packing group (IMDG)	:	III
Packing group (IATA)	:	III

14.5. Environmental hazards

Marine pollutant(IMDG)	:	No
Marine pollutant(IATA)	:	No

14.6. Special precautions for user

DOT

Not applicable

IMDG

Special provision (IMDG)	:	274
Limited quantities (IMDG)	:	0
Excepted quantities (IMDG)	:	E0

Packing instructions (IMDG)	:	P001
Tank instructions (IMDG)	:	T14
Tank special provisions (IMDG)	:	TP2, TP27
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	:	B
Segregation (IMDG)	:	SG36
MFAG-No	:	154

IATA

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y840
PCA limited quantity max net quantity (IATA)	:	0.5L
PCA packing instructions (IATA)	:	851
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	855
CAO max net quantity (IATA)	:	30L
Special provision (IATA)	:	A3
ERG code (IATA)	:	8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

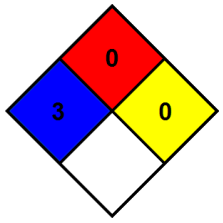
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date	:	4/3/2025
Other information	:	None.

Full text of H-phrases	
H290	May be corrosive to metals
H318	Causes serious eye damage

NFPA health hazard	:	3 - Materials that, under emergency conditions, can cause serious or permanent injury.
NFPA fire hazard	:	0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity	:	0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health	:	3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability	:	0 Minimal Hazard - Materials that will not burn
Physical	:	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection	:	C - Safety glasses, Gloves, Synthetic apron

Safety Data Sheet (SDS), USA

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Filtration System Operation Log

Date Issued: _____

Serial # 0002526 - 0002550

Employee: _____

0002526

DPS Filtration Log

Date In: _____ Date Out: _____

System Operator: _____

Contract Number: _____

Left Yard: _____

On Site: _____

Off Site: _____

Returned to Yard: _____

Customer Name: _____

Project Location: _____

Weather & Site Conditions

_____

_____

_____

Customer Signature _____

Notes:

1 _____

_____

_____

2 _____

_____

_____

3 _____

_____

_____

4 _____

_____

_____

5 _____

_____

_____

6 _____

_____

_____

Time	Influent		Flow		Dose Rate	Dose Rate		Discharge				Flow Meter Readings
	NTU	*PH*		*Unit*	*LBP-2101*	*Chitosan*		*NTU*	*PH*	*Residual*	*Temperature*	
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					
				GPM			GPH					

BRANCH COPY

As of 7/25/25

Current filtration technician list (responsible personnel currently operating on Maryland sites):

Timothy Kraus | Project Specialist | Rain for Rent Filtration 101 | 15 years experience

Mike Hummer | Project Specialist | Rain for Rent Filtration 101 | 13 years experience

Timothy Kaszas | Driver Class A, Ind. | Internally trained by certified instructor | 8 years experience

Shaun Frye | Field Technician 3 | Internally trained by certified instructor | 7 years experience

Cody Gizara | Driver Class A, Ind. | Internally trained by certified instructor | 6 years experience

Eric Streckfus | Driver Class A, Ind. | Internally trained by certified instructor | 5 years experience

John Gallano | Project Foreman | Internally trained by certified instructor | 4 years experience

Nathaniel Scholze | Field Technician 2 | Internally trained by certified instructor | 4 years experience

Andrew Hajnik | Driver Class A, Ind. | Internally trained by certified instructor | 5 years experience

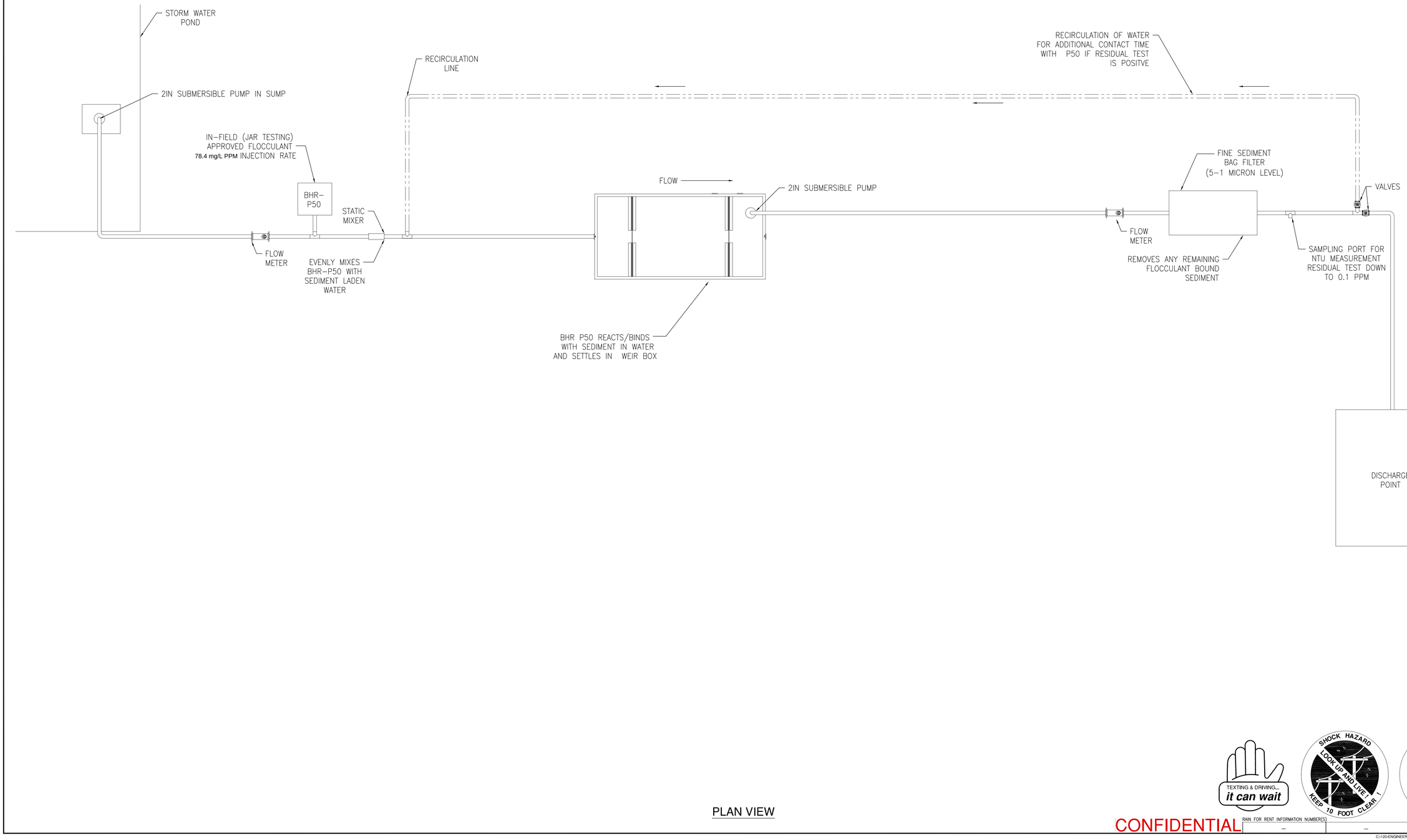
Kevin Pelletier | Field Technician 2 | Internally trained by certified instructor | 3 year experience

Tyler Dunleavey | Mechanic C | Internally trained by certified instructor | 3 year experience

REV.NO.	DESCRIPTION	PREVIOUS DWG	BY	DATE
1				

ITEM	QTY.	REF.	DESCRIPTION

NOTES:
1. ACTUAL LAYOUT AND EQUIPMENT MAY VARY FROM THIS DRAWING, DEPENDING ON EQUIPMENT AVAILABILITY AND SITE CONDITIONS.
2. ACTUAL DIMENSIONS MAY CHANGE.



PLAN VIEW

CONFIDENTIAL

RAIN FOR RENT INFORMATION NUMBER(S)

C:\120-ENGINEERING\VAULT\01 ENGINEERING JOBS\01-29921\02 AUTOCAD PROJECTS\01-29921-02-01.DWG

DWG I
SHEET SIZE D

DATE: 08/19/2024
SCALE: NOT TO SCALE
DESIGNED: H. HIGHFIELD
CHECKED: H. HIGHFIELD
DRAWN: J. ARGUETA

FILTRATION LAYOUT

COUNTRY CLUB ESTATES

Rain for Rent
Engineering
3404 STATE ROAD, P.O. BOX 2248 BAKERSFIELD, CA 93303

RAIN FOR RENT ENGINEERING DOCUMENT & DRAWING NUMBER
01-29921-02-01

SHEET 1 OF 1

09/18/2024

RE: Dober BHR - P50 Approval

The above referenced product is hereby approved for the use of sediment control, as identified below:

Name of Chemical Additive	Maximum Concentration
Haloklear BHR - P50	78.4 mg/L

The request for use and the supporting information submitted with regards to the above mentioned product has been reviewed (as described in the Department's Procedures for Review of Chemical Additives for Sediment Control dated April 30, 2019) and has been approved. Use of this product should be in accordance with any permit requirements including, but not limited to, limits, monitoring, and recordkeeping. The determined allowable maximum concentration identified in this approval does not supersede any specific limits or restrictions specified by other state or local permits or approvals.

At this time, MDE staff shall also update the online list of approved chemical additives.

With any questions on specific permit requirements or how to get a product approved, please visit our website here: https://mdewwp.page.link/IGPD to find information on each type of permit.

Sincerely,

Lillian Deery

Lillian Deery, Natural Resource Planner
Email: Lillian.Deery@maryland.gov
Industrial Stormwater Permits Division
Water and Science Administration

cc: WSA Compliance Program